US.Pat.Apl.Nr 10/694,835 Docket: 221-46US

Remarks
submitted December 2005

[001] This is responsive to the Office Action dated 12 September 2005.

[002] **Amendments.**

Please enter the amendments to claims 4 and 16, as submitted herewith.

Please enter new claim 17.

Please amend (by examiner's amendment) the heading of the disclosure, to the effect that the patent from which this C.I.P. is derived is now known to be US-6,727,091.

[003] Regarding the **Double Patenting** rejection based on granted patent **US-6,727,091**, we request that the rejection be reconsidered.

The PTO view is that the present claims 1-14,16 constitute the obvious operation of one of the apparatuses depicted in US-6,727,091. We do not concede that this is so.

We point out that the PTO, here, is alleging that it has in mind a procedure that falls within the scope of one or more of claims 1-14,16, being a procedure that is a merely obvious usage of one of the apparatuses disclosed in US-6,727,091. However, the PTO has not supplied any details as to just what is the procedure, as a matter of physical reality, that is the obvious usage that the PTO has in mind. Also, the PTO has not identified any teaching in the prior art that could be regarded as leading the skilled persons, when pondering how to use the apparatuses depicted in US-6,727,091, to obviously choose to use the apparatuses for remediating ammonia in a room.

If the PTO were to decide to continue the double patenting rejection based on 10/942,872, we would request that these essential elements of an obviousness rejection be supplied.

[004] Regarding the **Double Patenting** rejection based on co-pending application number **US-10/942,872**, we request that the rejection be reconsidered.

The PTO view is that the present claims 1-14,16 constitute the obvious operation of the apparatuses depicted in 10/942,872. We do not concede that this is so.

Patent application 10/942,872 (now published as US-2005/0,055,879) relates to a fastening system for attaching a matrix-mat to a support means. Of course, it is possible to envisage systems that fall within the scope of the claims of both patent applications.

But it is certainly also possible for the skilled person to envisage many different designs of systems for treating ammonia, which fall within the scope of claims 1-14,16 of 10/694,835, but which do not make use of the fastening strategies claimed in 10/942,872. Equally, it is certainly possible for the skilled person to envisage many different designs of fastening systems, which fall within the scope of the claims in 10/942,872, but which have nothing to do with remediating ammonia, as in claims 1-14,16 of 10/694,835. They are two separate and distinct inventions. Therefore, the notion of double patenting should not arise.

For these reasons, the Double Patenting rejection based on co-pending application number US-10/942,872 should be vacated.

We again also point out that the PTO, here, is alleging that it has in mind a procedure that falls within the scope of one or more of claims 1-14,16, being a procedure that is a merely obvious usage of one of the apparatuses disclosed in 10/942,872. However, the PTO has not supplied any details as to just what is the procedure, as a matter of physical reality, that amounts to the "obvious" usage that the PTO has in mind. Also, the PTO has not identified any teaching in the prior art that could be regarded as leading the skilled persons, when designing the mountings for the matrix in 10/694,835, to obviously choose the 10/942,872 manner of arranging the fasteners.

If the PTO were to decide to continue the double patenting rejection based on 10/942,872, we would request that these essential elements of an obviousness rejection be supplied.

[005] The PTO has alleged that there is a link between the present application, 10/694,835, and co-pending application 10/942,872. As mentioned above, we do not ourselves recognise that there is such a link. However, for the sake of completeness, we now request that the PTO **consider the prior art** contained in the file on 10/942,872 in respect of the present claims 1-14,16.

[006] Re the rejections of **claims 4,16 under 2nd § of 35 USC 112.**

The PTO states: Applicant can overcome these rejections by merely citing where in the specification or prior art (page and line) where the metes and bounds of terms such as "thick" and "fleshy" and "succulent" exits. Until such evidence is provided the rejections will be maintained.

Amended claim 4 now reads: Procedure of claim 1, wherein the said green plants include plants having foliage that is characterised as so thick and fleshy, and as having so waxy a surface, that the foliage is substantially unaffected by the rate at which ammonia is emitted into the room.

Amended claim 16 now reads: Procedure of claim 1, wherein the said green plants include plants having foliage that is characterised as so succulent that the foliage is substantially unaffected by the rate at which ammonia is emitted into the room.

Paragraphs [0041] to [0043] of the specification state:

[0041] It has been emphasized that the plants that are suitable for use in the invention are green plants. Microbial biomass, as such, for example, would not be suitable. Very much larger colonies of bacteria are required to break down airborne ammonia at concentrations of several milli.g/cu.m than can be viable in the absence of green plants. The colonies of microbes that pervade the roots of green plants do provide the required mass, and the roots are constantly being washed over by the hydroponic water, into which the ammonia /ammonium has been dissolved.

[0042] As to the types of green plants that may be used in the treatment system as described herein, of course the plants must remain viable, as plants, despite the contact with ammonia. As mentioned, the ammonia is broken down, after being dissolved into the hydroponic water, by microbial action, and the nitrogen component thereof is assimilated into the plants. It might be considered, therefore, that the types of green plants best suited for use in the invention would be the rapid growing plants, on the basis that the faster the growth the greater the need for nitrogen. However, some of the kinds of fast-growing plants that might be considered suitable for use in the invention (the spreading spider-plants, for instance) generally have thin leaves, and thin leaves tend not to be able to resist airborne ammonia. That is to say, after just a few days of exposure to quite modest concentrations, thin leaves tend to shrivel and turn black.

[0043] Rather, it has been found that plants with thick, succulent, fleshy foliage (i.e leaves, flowers, etc), are much more ammonia-resistant, especially where the foliage also has a waxy surface. Such plants are generally associated with being able to survive hot and/or dry conditions, in that the rate of evaporation of water from such foliage is comparatively reduced, and it may be regarded that it is this quality of being resistant to water expiration that makes the plant also resistant to ammonia penetration. On this basis, it may be expected that succulent plants, generally, would be candidates for use in the invention.

We believe these paragraphs give skilled horticulturalists enough information to enable them to determine whether this or that plant has the type of foliage required to fall within the scope of (amended) claims 4,16. If a procedure utilises plants with foliage so thin that the leaves shrivel and turn black, under the exposure to ammonia, that procedure would not be covered by claim 4. If a procedure uses plants having foliage that is so thick and fleshy and waxy-surfaced that the foliage is substantially unaffected by its exposure to ammonia, then that procedure would be covered by claim 4.

Similarly, if the plant is not so succulent, to the extent that its

foliage is adversely affected by the ammonia, then that would not be covered by claim 16.

[007] This application is now in all respects in condition for allowance, and we look forward to being so notified.

Submitted by:

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Enclo: amended claims 1-14,16,17